

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please cancel in this application original claims 4-36 and 40 of the prior application and AMEND claims 1-3, 37-39 and 41-46 in accordance with the following:

1. (currently amended) An image processing apparatus₁ comprising:

a first image processing ~~means for performing unit to perform~~ a first image process;

a second image processing ~~means for performing unit to perform~~ a second image process; and

a control ~~means for selecting unit to select one of~~ said first image process and said second image process based on a number of colors of a color image to be processed, where said first image processing unit performs the first image process if the number of colors in the color image is large, and said second image processing unit performs the second image process if the number of colors in the color image is small.

2. (currently amended) An image processing apparatus₁ comprising:

a color number determination ~~means for determining unit to determine~~ a number of colors of a color image;

a first labeling ~~means for labeling in unit using~~ a first labeling method;

a second labeling ~~means for labeling in unit using~~ a second labeling method; and

a control ~~means for instructing unit to instruct one of~~ said first ~~or and~~ second labeling ~~means-units~~ to perform a labeling process based on the number of colors of the color image, where said first labeling unit performs a labeling process using the first labeling method if the number of colors in the color image is large and said second labeling unit performs a labeling process using the second labeling method if the number of colors in the color image is small.

3. (currently amended) The apparatus according to claim 2,
wherein: said first labeling ~~means-unit~~ performs ~~a-the~~ labeling process by clustering color palettes for a color image other than a full-color image \dot{z}_1 and
wherein said second labeling ~~means-unit~~ performs ~~a-the~~ labeling process on the full-color image by an adjacency expanding method.

Claims 4-36 (cancelled)

37. (currently amended) An image processing apparatus, comprising:
~~a scanning means-for-scanning-unit to scan~~ an image in a predetermined direction;
~~a first counting means-for-counting-unit to count~~ a number of picture elements changing from a label other than a first label into the first label;
~~a second counting means-for-counting-unit to count~~ a number of picture elements changing from the first label into ~~a another~~ label ~~other than the first label~~ after at least two or more continuous picture elements labelled with the first label appear in the scanning direction; and
~~a third counting means-for-counting-unit to count~~ a number of picture elements assigned the first label whose adjacent picture elements in the scanning direction are also assigned the first label, and at least one of whose adjacent picture elements in a direction vertical-perpendicular to the scanning direction is assigned a different label ~~other than the first~~ label.

38. (currently amended) An image processing apparatus, comprising:
~~a unicolor area extraction means-for-extracting-unit to extract~~ a unicolor area from an input image by comparing a predetermined first threshold with color information about the input image;
~~a threshold computation means-for-computing-unit to compute~~ a second threshold ~~according to~~ by using a representative value obtained from the color information about the unicolor area; and
~~a unicolor area re-extraction means-for-re-extracting-unit to re-extract~~ a unicolor area from the input image by comparing the second threshold with the color information about the input image.

39. (currently amended) A method of extracting a pattern, comprising:
enlarging for setting a threshold for use in extracting a of a color difference in a first unicolor range for a first color having a low resolution to naked eyes; and
reducing a threshold of a color difference in a second unicolor range for a second color having high resolution to naked eyes for each unicolor area extracted from a-an input color image in consideration of color identification characteristics of a person.

40. (cancelled)

41. (currently amended) A method of setting a labeling threshold, comprising ~~the steps~~ of:

extracting a part of a unicolor pattern from an input image;
setting a threshold for determining a unicolor range according to with standard deviation obtained from color information-variance about the unicolor pattern extracted from the input image; and
extracting a remaining part of the unicolor pattern based on the threshold.

42. (currently amended) A method of setting a labeling threshold, comprising ~~the steps~~ of: ~~computing read resolution of~~

dividing an input image into a matrix of rectangular picture areas;
obtaining a color image for variance of the picture elements in each rectangular area;
extracting a rectangular area of a level color element with the color variance; and
setting
obtaining a labeling threshold of the color image based on the read resolution for each-use in the labeling process by using the standard deviation of the picture elements in the rectangular area of the level color-element.

43. (currently amended) A method of obtaining an outline length, comprising ~~the steps~~ of:

scanning an image labeled in advance in a predetermined direction; and
computing an outline length of a pattern in the image based on a frequency at which a label value changes in ~~the~~ a scanning operation.

44. (currently amended) A computer-readable storage medium ~~having a data structure in which storing at least one program embodying a method comprising:~~

obtaining a maximum value of a color difference between adjacent picture elements corresponding to a luminance value of a color when an image is read-is-entered; and
entering the maximum value of the color difference for each read resolution into a predetermined data structure.

45. (currently amended) A computer-readable storage medium storing a program used to perform a labeling process ~~in different labeling methods based on a number of colors in a color image, comprising:~~

clustering color palettes for color images other than a full-color image; and
processing full-color images by an adjacency expanding method.

46. (currently amended) A computer-readable storage medium storing a program used to control a processor to perform the steps of a method comprising:

obtaining read information about an input image by extracting a local area from the input image and extracting color difference information about the input image from the local area;

setting a labeling threshold of the input image according to the read information about the input image by setting a labeling threshold for the input image according to the color difference information;

labeling the input image using the threshold;

grouping a label pattern obtained by the labeling;

obtaining image information about a group according to image information about a pattern in a same group; and

extracting a pattern according to image information about the group